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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,810	12/15/2005	Yoshiharu Kobayashi	2005_1750A	5608

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EXAMINER

BIBBINS, LATANYA

ART UNIT	PAPER NUMBER
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2627

NOTIFICATION DATE	DELIVERY MODE
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09/28/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ddalecki@wenderoth.com
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Office Action Summary	Application No. 10/560,810	Applicant(s) KOBAYASHI ET AL.	
	Examiner LATANYA BIBBINS	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29,30,32 and 57-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29,30,32,57-60 and 63-70 is/are allowed.
- 6) ☒ Claim(s) 61 and 62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 20, 2010 has been entered.
2. In the remarks filed on June 30, 2010, Applicant amended claims 29 and 32, cancelled claims 31, 33-44 and 48-56, added claims 60-70 and submitted arguments for allowability of pending claims 29, 30, 32 and 57-70.

Response to Arguments

3. Applicant's arguments, filed June 30, 2010, with respect to claims 29, 30, 32 and 57-60 have been fully considered and are persuasive. The rejections of claims 29, 30, 32 and 57-60 have been withdrawn.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claim 61 is rejected under 35 U.S.C. 102(b) as being anticipated by Hiroshi (JP 11-232674).

Regarding claim 61, Hiroshi discloses an optical disk (Drawing 1) comprising: a transparent planar disk base member (Drawing 2B, elements 11b and 12b and the discussion in paragraph [0027]); a recording layer formed on the disk base member (Drawing 2B, element 11a and the discussion in paragraph [0027]); and a reflecting layer which reflects an incident laser beam by way of the disk base member (Drawing 2B element 12a and the discussion in paragraph [0027]), wherein the reflecting layer is formed at a position opposing the disk base member with respect to the recording layer (Drawing 2 and the discussion in paragraph [0027]), and wherein a gap between the recording layer and the reflecting layer is set larger than a wavelength of the laser beam (Drawing 2 and the discussion in paragraphs [0025]-[0027]).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroshi (JP 11-232674) in view of Ota (US Patent No. 5,559,784).

Regarding claim 62, Hiroshi discloses the optical disk according to claim 61 as noted in the 35 U.S.C. 102(b) rejection above. Hiroshi, however, fails to disclose that

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the recording layer is made of a photoisomerizing material. Ota, however, discloses an optical disk wherein the recording layer is made of a photoisomerizing material having a property that two-photon absorption occurs by irradiation of the laser beam (see the discussion in column 16 lines 23 - column 17 line 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the photoisomerizing material into the recording layer of the optical disk, as disclosed by Ota, into the optical disk of Hiroshi. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to remove interwrite cross talk during the write mode (as suggested by Ota in column 1 lines 1-7).

Allowable Subject Matter

8. **Claims 29, 30, 32, 57-60 and 63-70** are allowed.

9. The following is an examiner's statement of reasons for allowance:.

Regarding claims 29, 30, 32 and 57-60 none of the references of record, alone or in combination, suggest or fairly teach the limitations of independent claim 29 in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper. Although the prior art discloses an optical disk apparatus for recording or reproducing information on or from an optical disk which has a transparent planar disk base member, a recording layer formed on the disk base member, and a reflecting layer for reflecting a laser beam by way of the disk base member, the reflecting layer being disposed on an opposite side of the disk base member than the recording layer, and the optical disk being

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configured such that an interval between the recording layer and the reflecting layer is longer than a wavelength of the laser beam, said optical disk apparatus comprising: a light source which irradiates the laser beam for recording or reproducing the information on or from the optical disk, wherein said light source irradiates the laser beam onto the recording layer of the optical disk by way of the disk base member to form a focusing spot on the recording layer; a photo detector which receives from the reflecting layer a reflected beam of the laser beam irradiated from said light source; a tilt detecting unit which detects tilt of the optical disk by using an output from said photo detector; a beam splitter which splits the reflected beam and the laser beam incident onto the optical disk such that the reflected beam and the laser beam incident onto the optical disk propagate along different optical paths from each other; an objective lens which focuses the laser beam split by the beam splitter onto the recording layer of the optical disk; and an objective lens actuator which moves the objective lens to focus the laser beam onto the recording layer of the optical disk, the prior art fails to disclose **an aberration canceling unit which is disposed on an optical path for guiding the reflected beam to the photo detector to cancel a defocus aberration and a spherical aberration of the reflected beam split by the beam splitter, and wherein the aberration canceling unit includes a condenser lens which focuses the reflected beam on the photo detector and a condenser lens actuator which moves the condenser lens to cancel the aberration of the reflected beam.**

Regarding claims 63-70, none of the references of record, alone or in combination, suggest or fairly teach the limitations of independent claim 63 in such a

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manner that a rejection under 35 U.S.C. 102 or 103 would be proper. Although the prior art discloses a system comprising an optical disk and an optical disk apparatus for recording or reproducing information on or from the optical disk, wherein the optical disk has a transparent planar disk base member, a recording layer formed on the disk base member, and a reflecting layer for reflecting a laser beam by way of the disk base member, the reflecting layer being disposed on an opposite side of the disk base member than the recording layer, and the optical disk being configured such that an interval between the recording layer and the reflecting layer is longer than a wavelength of the laser beam, and wherein said optical disk apparatus comprises: a light source which irradiates the laser beam for recording or reproducing the information on or from the optical disk, wherein said light source irradiates the laser beam onto the recording layer of the optical disk by way of the disk base member to form a focusing spot on the recording layer; a photo detector which receives from the reflecting layer a reflected beam of the laser beam irradiated from said light source; a tilt detecting unit which detects tilt of the optical disk by using an output from said photo detector; a beam splitter which splits the reflected beam and the laser beam incident onto the optical disk such that the reflected beam and the laser beam incident onto the optical disk propagate along different optical paths from each other; an objective lens which focuses the laser beam split by the beam splitter onto the recording layer of the optical disk; an objective lens actuator which moves the objective lens to focus the laser beam onto the recording layer of the optical disk; and the prior art fails to disclose **an aberration canceling unit which is disposed on an optical path for guiding the**

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reflected beam to the photo detector to cancel a defocus aberration and a spherical aberration of the reflected beam split by the beam splitter, the aberration canceling unit including a condenser lens which focuses the reflected beam on the photo detector and a condenser lens actuator which moves the condenser lens to cancel the aberration of the reflected beam.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LATANYA BIBBINS whose telephone number is (571)270-1125. The examiner can normally be reached on Monday through Friday 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LaTanya Bibbins/
Examiner, Art Unit 2627